```
65: /cgn2_6/ptodata/1/pna/US6021_COMB.seq:*
66: /cgn2_6/ptodata/1/pna/US6022_COMB.seq:*
67: /cgn2_6/ptodata/1/pna/US6023_COMB.seq:*
68: /cgn2_6/ptodata/1/pna/US6024_COMB.seq:*
68: /cgn2_6/ptodata/1/pna/US6025_COMB.seq:*
69: /cgn2_6/ptodata/1/pna/US6025_COMB.seq:*
70: /cgn2_6/ptodata/1/pna/US6025_COMB.seq:*
71: /cgn2_6/ptodata/1/pna/US6025_COMB.seq:*
72: /cgn2_6/ptodata/1/pna/US6025_COMB.seq:*
73: /cgn2_6/ptodata/1/pna/US6025_COMB.seq:*
74: /cgn2_6/ptodata/1/pna/US6030_COMB.seq:*
75: /cgn2_6/ptodata/1/pna/US6031_COMB.seq:*
76: /cgn2_6/ptodata/1/pna/US6031_COMB.seq:*
77: /cgn2_6/ptodata/1/pna/US6035_COMB.seq:*
78: /cgn2_6/ptodata/1/pna/US6035_COMB.seq:*
80: /cgn2_6/ptodata/1/pna/US6035_COMB.seq:*
80: /cgn2_6/ptodata/1/pna/US6035_COMB.seq:*
81: /cgn2_6/ptodata/1/pna/US6035_COMB.seq:*
82: /cgn2_6/ptodata/1/pna/US6035_COMB.seq:*
83: /cgn2_6/ptodata/1/pna/US6035_COMB.seq:*
84: /cgn2_6/ptodata/1/pna/US6035_COMB.seq:*
85: /cgn2_6/ptodata/1/pna/US6035_COMB.seq:*
84: /cgn2_6/ptodata/1/pna/US6035_COMB.seq:*
85: /cgn2_6/ptodata/1/pna/US6035_COMB.seq:*
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.

Query Score Match Length DB ID

Description

	US-09-654-617-1216	25	1884	94.6	2267	26
Sequence 1, Appli	US-09-936-190-1	35	1717	94.6	2267	25
Sequence 367, App	US-60-337-358-367	77	1709	94.6	2267	24
Sequence 3561, Ap	US-10-219-999-3561	42	1694	94.6	2267	23
Sequence 29, Appl	US-60-144-783-29	58	1566	94.6	2267	22
Sequence 29, Appl	US-09-857-581-29	32	1566	94.6	2267	21
Sequence 33, Appl	US-60-144-783-33	58	1566	94.7	2268	20
Sequence 31, Appl	US-60-144-783-31	58	1566	94.7	2268	19
Sequence 27, App.	US-60-144-783-27	58	1566	94.7	2268	18
Sequence 25, App.	US-60-144-783-25	58	1566	94.7	2268	17
Sequence 23, App.	US-60-144-783-23	58	1566	94.7	2268	16
Sequence 33, Appl	US-09-857-581-33	32	1566	94.7	2268	15
Sequence 31, Appl	US-09-857-581-31	32	1566	94.7	2268	14
Sequence 27, Appl	US-09-857-581-27	32	1566	94.7	2268	13
Sequence 25, Appl	US-09-857-581-25	32	1566	94.7	2268	12
Sequence 23, App	US-09-857-581-23	32	1566	94.7	2268	11
ŗ,	US-60-311-461-1	75	1756	94.7	2269	10
ļ,	US-60-144-783-1	58	1756	94.7	2269	9
Ļ	US-60-117-769-1	55	1756	94.7	2269	œ
Sequence 9, Appli	US-10-171-174A-9	41	1756	94.7	2269	7
۲	US-10-104-706A-1	40	1756	94.7	2269	σ
۲	US-10-104-706-1	40	1756	94.7	2269	u
Sequence 1, Appli	US-09-857-581-1	32	1756	94.7	2269	Δ
Sequence 1, Appli	PCT-US02-11260-1	بن سر	1756	94.7	2269	ω
Sequence 35, Appl	US-60-144-783-35	58	1563	94.7	2270	N
Sequence 35, Appl	US-09-857-581-35	32	156	94.7	2270	۲

45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27
2177	2178	2178	2178	2179	2179	2180	2180	2183	2186	2186	2193	2193	2201.5	2201.5	2251	2251	2251	2267
90.9	90.9	90.9	90.9	90.9	90.9	91.0	91.0	91.1	91.2	91.2	91.5	91.5	91.9	91.9	93.9	93.9	93.9	94.6
1501	1501	1501	1501	1501	1501	1501	1501	1501	2059	2059	1801	1801	1900	1900	1824	1824	1824	1884
3 2	5 8	32	32	58	32	58	32	32	27	25	58	32	58	32	58	32	18	27
US-09-857-581-21	US-60-144-783-19	US-09-857-581-58	US-09-857-581-19	US-60-144-783-39	US-09-857-581-39	US-60-144-783-15	US-09-857-581-15	US-09-857-581-56	US-09-684-016-1217	US-09-654-617-1217	US-60-144-783-52	US-09-857-581-52	US-60-144-783-53	US-09-857-581-53	US-60-144-783-9	US-09-857-581-9	US-09-453-315-13	US-09-684-016-1216
Sequence 21, Appl	Sequence 19, Appl	Sequence 58, Appl	Sequence 19, Appl	Sequence 39, Appl	Sequence 39, Appl	Sequence 15, Appl	Sequence 15, Appl	Sequence 56, Appl	Sequence 1217, Ap	Sequence 1217, Ap	52,	Sequence 52, Appl	Sequence 53, Appl	Sequence 53, Appl	Sequence 9, Appli	Sequence 9, Appli	Sequence 13, Appl	Sequence 1216, Ap

ALIGNMENTS

US-09-857-581-66 (1-521) x US-09-857-581-35 (1-1563)	DB: 32	.Query Match: 94.74%	. Best Local Similarity: 87.14%	Percent Similarity: 87.14%	Score: 2270.00	Pred. No.: 9.89e-260	Alignment Scores:	US-09-857-581-35	; ORGANISM: Pisum sativum	; TYPE: DNA	; LENGTH: 1563	; SEQ ID NO 35	; SOFTWARE: Microsoft Office 97	; NUMBER OF SEQ ID NOS: 66	; PRIOR FILING DATE: 1999-09-24	; PRIOR APPLICATION NUMBER: 60/156,094	; PRIOR FILING DATE: 1999-07-20	; PRIOR APPLICATION NUMBER: 60/144,783	; PRIOR FILING DATE: 1999-01-27	; PRIOR APPLICATION NUMBER: 60/117,769	; CURRENT FILING DATE: 2001-06-05	; CURRENT APPLICATION NUMBER: US/09/857,581	; FILE REFERENCE: BB1339 PCT	; TITLE OF INVENTION: Nucleic Acid Sequences Encoding	; APPLICANT: E. I. du Pont de Ne	; GENERAL INFORMATION:	; Sequence 35, Application US/09857581	US-09-857-581-35	RESULT 1
-857-581-35 (1-1563)	Gaps: 0	Indels: 0 .	Mismatches: 67	Conservative: 0	Matches: 454	0 Length: 1563							•			156,094		144,783		117,769	- 05	s/09/857,581		cid Sequences Encoding Isoflavone Synthase	Nemours and Company	•	957581		

1 MetLeuLeuGluLeuAlaLeuGlyLeu***ValLeuAlaLeuPhe***HisLeuArgPro 20

Ś

Ś 밁 Ś 밁 Ş 밁 S 문 á 밁 á 밁 á 밁 á 밁 á 밁 Ś 밁 á 밁 S 밁 S 문 á 밁 281 781 721 241 661 221 601 201 541 181 481 161 421 141 361 181 261 121 301 101 241 121 81 61 41 13 21 μ GluAspGluThr***GluIleLysIleThrLys******IleLysGlyLeuValValAsp| ArgLeuProPheIleGlyHis***HisLeuLeuLysAspLysLeuLeuHisTyrAla***
||||||||||||||||||
|CGTCTTCCCTTCATTGGCCACCTCTCACCTCTTAAAAGATAAACTTCTCCACTATGCACTC ATGTTGCTGGAACTTGCACTTGGTTTGTGTTAGCTTTGTGTTTCTGCACTTGCGTCCC 300 260 240 200 180 160 120 80 780 720 660 220 600 540 420 360 180 40 60

RESULT 2 US-60-144-783-35

Sequence 35, Application US/60144783
GENERAL INFORMATION:
APPLICANT: Fader, Gary M.
APPLICANT: Unng, Woosuk
APPLICANT: McGonigle, Brian

```
밁
                                                                             Ś
                                                                                                          밁
                                                                                                                                                                                       Ś
밁
                         Ś
                                                                                                                                   Ś
                                                                                                                                                                밁
                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                              뭐
                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
1561
                                                                                                                                                                                                                                                                          1261
                                                                                                                                                                                                                                                                                                                                                                                     1141
                                                   1501
                                                                                                          1441
                                                                                                                                                                1381
                                                                                                                                                                                                                     1321
                                                                                                                                                                                                                                                                                                                                1201
                                                                                                                                                                                                                                                                                                                                                                                                                                          1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1021
                                                                              501
                                                                                                                                     481
                                                                                                                                                                                         461
                                                                                                                                                                                                                                              441
                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                         401
                                                                                                                                                                                                                                                                                                                                                                                                                381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                  - Ser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ArgAlaHisSerLeuValCysValProLeuAlaArgIleGlyValAlaSerLysLeuLeu
                                                                                                                        IleLeuLysGly***AspAlaLysValSerMetGluGluArgAlaGlyLeuThrValPro
                                                                                                                                                                              ThrLeuLeuAlaSerLeuIleGlnCysPheAspLeuGlnValLeuGlyProGlnGlyGln
                                                                                                                                                                                                                                  ProPheGlySerGlyArg***MetCysProGlyVal***LeuAlaThrSerGly***Ala
                                                                                                                                                                                                                                                                                       Thr***AlaGluGlyGluAla******LeuAspLeuArgGly***HisPheGlnLeuLeu
                                                                                                                                                                                                                                                                                                                                           Gly***Asp***LysTyrTrpAspArgProSerGlu***ArgProGluArgPheLeuGlu
                                                                                                                                                                                                                                                                                                                                                                                                  ***IleAsnGly***Val***ProGluGlyAlaLeu******PheAsnValTrpGlnVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                     GluThrPheArgMetHisProProLeuProValValLysArgLysCys***GluGluCys
Ţ
                                                                                                          CCATTTGGGTCTGGGAGGAGAATGTGCCCTGGTGTCAATTTGGCTACTTCAGGAATGGCA
                                                                                                                                                                                                                                                                                                                                                                                    GAGATTAATGGGTATGTGATCCCAGAGGGAGCATTGGTTCTTTTCAATGTTTGGCAAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IleAsnAsnPro***ValLeu*****AlaArgGluGlu***TyrSerValValGlyLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ***PheSerAlaGly***AspSerThrAla******ThrGluTrpAlaLeuAlaGluLeu
                                                     AGGGCACATAGTCTCGTTTGTGTTCCACTTGCAAGGATCGGCGTTGCATCTAAACTCCTT
                                                                                                                                                                ACACTTCTTGCATCTCTTATCCAATGCTTTGACCTGCAAGTGCTGGGCCCTCAAGGACAA
                                                                                                                                                                                                                                                                         ACTGGCGCTGAAGGGGAAGCAGGGCCTCTTGATCTTAGGGGCCAGCATTTCCAACTCCTC
                                                                                                                                                                                                                                                                                                                              GGAAAGGACCCCAAATACTGGGACAGACCATCAGAATTCCGTCCCGAGAGGTTCTTAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGACATTCCGAATGCACCCACCACTCCCAGTGGTCAAAAGAAGTGCACAGAAGAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATCAACAATCCCAGGGTGTTGCAAAAGGCTCGTGAGGAGGTCTACAGTGTTGTGGGCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTTTTCTCTGCAGGGACAGATTCCACAGCGGTGGCAACAGAGTGGGCATTGGCAGAGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGGACGAGACCATGGAGATCAAAATTACCAAGGAGCAAATCAAGGGCCTTGTTGTCGAC
1563
                                                   1560
                                                                                                         1500
                                                                                                                                                                1440
                                                                                                                                                                                                                     1380
                                                                                                                                                                                                                                                                         1320
                                                                                                                                                                                                                                                                                                                              1260
                                                                                                                                                                                                                                                                                                                                                                                    1200
                                                                                                                                                                                                                                                                                                                                                                                                                                         1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1020
                                                                              520
                                                                                                                                   500
                                                                                                                                                                                         480
                                                                                                                                                                                                                                              460
                                                                                                                                                                                                                                                                                                   440
                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                              400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                900
```

```
밁
                                                                     B
                                                                                           ঠ
                                                                                                                    밁
                                                                                                                                        S
                                                                                                                                                                 문
                                                                                                                                                                                      á
                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                           á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: Microsoft Office 97
SEQ ID NO 35
LENGTH: 1563
TYPE: DNA
ORGANISM: Pisum sativum
                                             S
                                                                                                                                                                                                                                                                                                                                                                                                US-09-857-581-66 (1-521) x US-60-144-783-35 (1-1563)
                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-60-144-783-35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/60/144,783
CURRENT FILING DATE: 1999-07-20
NUMBER OF SEQ ID NOS: 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILE REFERENCE: BB-1339-P2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: Nucleic Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Odell, Joan T. APPLICANT: Yu, Xiaodan
                                                                                                                                                                241
                                               141
                                                                      361
                                                                                             121
                                                                                                                    301
                                                                                                                                           101
                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                           121
                                                                                                                                                                                       18
                                                                                                                                                                                                                                    13
                                                                                                                                                                                                                                                                                  41
                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                              21
                                                                     Arg***MetAlaGln***AlaGluAla***LysProLeuAsp***ThrGluGluLeuLeu
                         AACGCCACCACCGTCAACGAGCTCAGGCCTTTGAGGACCCAACAGATCCGCAAGTTCCTT
                                     AsnAlaThrThrValAsn***LeuArgProLeuArgThrGlnGlnIleArgLys***Leu 160
                                                                                                                                Phe***ThrArgPheGlnThrSerAla***Arg***LeuThrTyrAsp*****ValAla
                                                                                                                                                                                                               ACACCAAGCGCAAAATCAAAAGCACTTCGCCACCTCCCAAACCCTCCAAGCCCAAAGCCT
                                                                                                                                                                                                                                                                                                                   ThrPro***Ala****SerLysAlaLeuArgHisLeuProAsnProProSerPro***Pro 40
                                                                                                                   TTCAGCACAAGGTTCCAAACCTCTGCCGTAAGACGCCTCACTTACGACAACTCTGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                        9.89e-260
2270.00
87.14%
87.14%
94.74%
58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Fragments Encoding Isoflavone Synthase
                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative: Mismatches: Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                            0050
                         480
                                                                                                                    360
                                                                                                                                         120
                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                                                                                            20
```

```
S
                                                                                                                                                                                                                                                                                                                                                                                                 á
                                밁
                                                    Ş
                                                                          밁
                                                                                              8
                                                                                                                  당•
                                                                                                                                        ş
                                                                                                                                                               밁
                                                                                                                                                                                  Ş
                                                                                                                                                                                                         밁
                                                                                                                                                                                                                           á
                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                            믕
                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                            á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                  1261
                                                                           1201
                                                                                                                   1081
                                                                                                                                                                                                         1021
                                                                                                                                                                                                                                                  961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661
             441
                                                     421
                                                                                               401
                                                                                                                                                                                    361
                                                                                                                                                                                                                            341
                                                                                                                                                                                                                                                                       321
                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                      841
                                                                                                                                                                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181 LysTrp***AsnSerThr***SerMetMet***LeuGlyGluAlaGluGluIleArgAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                          281
                                                                                                                                                                                                                                                                                                                                                                                         261 GlyGlu******GluGlyGlu****SerGlyVal****LeuAspThrLeuLeuGluPheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  201
                                                                                                                                                                                                                                                GluAspGluThr***GluIleLysIleThrLys*******!leLysGlyLeuValValAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LeuLys***LeuLysValGlyLysTyrGluLysArgIleAspAspIleLeuAsnLysPhe

        ProPheGlySerGlyArg***MetCysProGlyVal***LeuAlaThrSerGly***Ala

        ||||||||||||||||

                                GluThrPheArgMetHisProProLeuProValValLysArgLysCys***GluGluCys 380
                                                                                                                                                                                                      ASP***LeuValAspGluValAspThrGlnAsnLeuProTyrIleArgAlaIleValLys 360
                                                                                                                                                                                                                                                                                                                                                                                                                                  AspProValValGluArgValIleLysLysArgArg***IleValArgArgArg***Asn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTTTTCTCTGCAGGGACAGATTCCACAGCGGTGGCAACAGAGTGGGCATTGGCAGAGCTC
                                                                                                                                                                                                                                                                                                                                     GAGGACGAGACCATGGAGATCAAAATTACCAAGGAGCAAATCAAGGGCCTTGTTGTCGAC
                                                                                                                                                                                                                                                                                                                                                                                GGAGAAGTTGTTGAGGGCGAGGCCAGCGGCGTCTTCCTCGACACTTTGCTTGAATTCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                        ATCGCTCGCGAGGTCCTTAAGATCTTCGGCGAATACAGCCTCACTGACTTCATCTGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAATGGACCAACAGCACCATCTCCATGATGATGCTCGGCGAGGCTGAGGAGATCAGAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGGTTATGGCCCAAAGCGCAGAAGCCCCAGAAGCCCCTTGACGTCACCGAGGAGCTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTGAAGTATCTCAAGGTTGGAAAGTATGAGAAGAGGATTGATGACATCTTGAACAAGTTC
                                                                           1260
                                                                                                                     1200
                                                                                                                                                               1140
                                                                                                                                                                                                         1080
                                                                                                                                                                                                                                                  1020
             460
                                                      440
                                                                                               420
                                                                                                                                          400
                                                                                                                                                                                                                                                                     340
                                                                                                                                                                                                                                                                                            960
                                                                                                                                                                                                                                                                                                               320
                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                              840
                                                                                                                                                                                                                                                                                                                                                                                                  280
                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                             260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
```

8	8 8	유 성	us-09	Alignm Pred. Score: Sercen Best L Query DB:	PCT-U	SEQ ;		•	 ¤ H ≥	RESULT 3 PCT-US02 ; Sequen ; GENERA	문	Ą	B	Ś	D	ş	F	Ş	뮹
4	21 127	1 67	-857-	nment Sc. No.: No.: In No.:	TYPE: DNA ORGANISM: US02-1126	DENGTH	PRIOR FILL	JRRENT JRRENT	PPLICA ITLE C	US02-1 US02-1 quence NERAL	1561	521	1501	501	1441	481	1381	461	1321
ArgLeuProPhelleGlyHis***HisLeuLeuLysAspLysLeuLeuHisTyrAla*** 60 	ThrPro***Ala***SerLysAlaLeuArgHisLeuProAsnProProSerPro***Pro 40 	MetLeuLeuGluLeuAlaLeuGlyLeu***ValLeuAlaLeuPhe***HisLeuArgPro 20 	US-09-857-581-66 (1-521) x PCT-US02-11260-1 (1-1756)	Alignment Scores: 1.51e-259 Length: 1756 Score: 2269.00 Matches: 454 Secrent Similarity: 87.14% Conservative: 0 Best Local Similarity: 87.14% Mismatches: 67 Query Match: 94.70% Indels: 0 DB: 1 Gaps: 0	TYPE: DNA : ORGANISM: Glycine max PCT-US02-11260-1	SOFTWARE: Microsoft Office 97 EQ ID NO 1 LENGTH: 1756	ING DATE: 2001-03- SEQ ID NOS: 17	CURRENT APPLICATION NUMBER: PCT/US02/11260 CURRENT FILING DATE: 2002-03-21	APPLICANT: E.I. du Pont de Nemours and Company TITLE OF INVENTION: Root-Specific, Stimulant Inducible Promoter and its Use FILE REFERENCE: BB1468 US NA		1 TCT 1563	Ser 521	1 AGGCACATAGTCTCGTTTGTGTCCACTTGCAAGGATCGGCGTTGCATCTAAACTCCTT 1560	_	1 ATATTGAAAGGTGACGATGCCAAAGTTAGCATGGAAGAGAGAG		1 ACACTTCTTGCATCTCTTATCCAATGCTTTGACCTGCAAGTGCTCGGGCCCTCAAGGACAA 1440		1 CCATTTGGGTCTGGGAGGAGAATGTGCCCTGGTGTCAATTTGGCTACTTCAGGAATGGCA 1380

```
밁
                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 ******Pro***GlyProTyrTrp***PheValArgLysLeuIleMetAsnAspLeuLeu 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   367
                                                                         967
                                                                                                            301
                                                                                                                                                                                                                    847
                                                                                                                                                                                                                                     261 GlyGlu******GluGlyGlu***SerGlyVal***LeuAspThrLeuLeuGluPheAla 280
                                                                                                                                                                                                                                                                                             787
                                                                                                                                                                                                                                                                                                                                                                                                                                       667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181 LysTrp***AsnSerThr***SerMetMet***LeuGlyGluAlaGluGluIleArgAsp 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        141 AsnAlaThrThrValAsn***LeuArgProLeuArgThrGlnGlnIleArgLys***Leu 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    187
                                                                                                                                                                                                                                                                                                              241 AspProValValGluArgValIleLysLysArgArg***IleValArgArgArg***Asn
                                                                                                                                                                                                                                                                                                                                                                   727
                                                                                                                                                                                                                                                                                                                                                                                   221 LeuLys***LeuLysValGlyLysTyrGluLysArgIleAspAspIleLeuAsnLysBhe 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                     201 IleAlaArgGluValLeuLysIle***GlyGluTyrSerLeuThrAspPheIle***Pro 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13
                                                                                         ***PheSerAlaGly***AspSerThrAla******ThrGluTrpAlaLeuAlaGluLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Arg***MetAlaGln***AlaGluAla***LysProLeuAsp***ThrGluGluLeuLeu 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Phe***ThrArgPheGlnThrSerAla***Arg***LeuThrTyrAsg******ValAla 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IleAspLeuSerLysLysHisGlyProLeuPheSer*****PheGlySerMetProThr
                                                                       TTTTTCTCTGCAGGGACAGATTCCACAGCGGTGGCAACAGAGTGGGCATTGGCAGAGCTC 1026
                                                                                                                                                                                                                    GGAGAAGTTGTTGAGGGCGAGGCCAGCGGCGTCTTCCTCGACACTTTGCTTGAATTCGCT 906
                                                                                                                                                                                                                                                                                          TIGAAGTATCICAAGGIIGGAAAGTATGAGAAGAGGATTGATGACATCIIGAACAAGTIC 786
                                                                                                                                                                                                                                                                                                                                                                                                                                     ATCGCTCGCGAGGTTCTTAAGATCTTCGGCGAATACAGCCTCACTGACTTCATCTGGCCT 726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ANATGGACCAACAGCACCATCTCCATGATGATGCTCGGCGAGGCTGAGGAGATCAGAGAC 666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AACGCCACCACCGTCAACAAGCTCAGGCCTTTGAGGACCCAACAGATCCGCAAGTTCCTT 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATGGTTCCATTCGGACCTTACTGGAAGTTCGTGAGGAAGCTCATCATGAACGACCTTCTC 486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTCAACACAAGGTTCCAAACCTCTGCCATAAGACGCCTCACTTACGACAACTCTGTGGCC 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGTCTTCCCTTCATTGGCCACCTTCACCTCTTAAAAGATAAACTTCTCCACTATGCACTC 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGGTTATGGCCCAAAAGCGCAGAGGCCCCAGAAGCCCCTTGACGTCACCGAGGAGCTTCTC 606
                                                                                                                                                                                                                                                                                                                            260
                                                                                                            320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 80
```

1027

· · · · · · · · · · · · · · · · · · ·	유정	음 성	8 8	음 성	음 성	음 성	움정	참 성	윰정	참 성
NESULT 4 US-09-85 Sequen GENERA APPLI FILE CURRE CURRE CURRE CURRE PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR										
ULT 4 09-557- ENERAL APPLICA TITLE 01 TITLE REI CURRENT CURRENT PRIOR F	521 1627	501 1567	481 1507	461 1447	441 1387	421 1327	401 1267	381 1207	361 1147	341 1087
US-09-857-581-1 US-09-857-581-1 Sequence 1, Application US/09857581 GENERAL INFORMATION: APPLICANT: E. I. du Pont de Nemours and Company TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase FILE REFERENCE: BB133 PCT CURRENT APPLICATION NUMBER: US/09/857,581 CURRENT FILING DATE: 2001-06-05 PRIOR APPLICATION NUMBER: 60/117,769 PRIOR APPLICATION NUMBER: 60/144,783 PRIOR FILING DATE: 1999-01-27 PRIOR PILING DATE: 1999-07-20 PRIOR FILING DATE: 1999-09-24 PRIOR FILING DATE: 1999-09-24 PRIOR FILING DATE: 1999-09-24 PRIOR FILING DATE: 1999-09-24	Ser 521 TCT 1629	ATGAlaHisSerLeuValCysValProLeuAlaArgIleGlyValAlaSerLysLeuLeu 520	. IleLeuLysGly***AspAlaLysValSerMetGluGluArgAlaGlyLeuThrValPro 500 	ThrLeuLeuAlaSerLeuIleGlnCysPheAspLeuGlnValLeuGlyProGlnGlyGln 480	ProPheGlySerGlyArg***MetCysProGlyVal***LeuAlaThrSerGly***Ala 460	Thr***AlaGluGlyGluAla******LeuAspLeuArgGly***HisPheGlnLeuLeu 440	. Gly***Asp***LysTyrTrpAspArgProSerGlu***ArgProGluArgPheLeuGlu 420	***IleAsnGly***Val***ProGluGlyAlaLeu******PheAsnValTrpGlnVal 400 	GluThrPheArgMetHisProProLeuProValValLysArgLysCys***GluGluCys 380 	ASP***LeuValAspGluValAspThrGlnAsnLeuProTyrIleArgAlaIleValLys 360

```
; SOFTWARE: Microsoft Office 97
; SEQ ID NO 1
; LENGTH: 1756
; TYPE: DNA
; ORCANISM: Glycine max
US-09-857-581-1
                                                                                                                                           밁
                           밁
                                           S
                                                                밁
                                                                                  Ś
                                                                                                     밁
                                                                                                                       Ś
                                                                                                                                                                               В
                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                    片
                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                          Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                        US-09-857-581-66 (1-521) x US-09-857-581-1 (1-1756)
                                                                                                                                                                                                                                                                                                                                                                                                                       Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                Score:
                                                              181 LysTrp***AsnSerThr***SerMetMet***LeuGlyGluAlaGluGluIleArgAsp 200
                         121 ******Pro***GlyProTyrTrp***PheValArgLysLeuIleMetAsnAspLeuLeu 140
                                                                                                                                          367 TTCAACACAAGGTTCCAAACCTCTGCCATAAGACGCCTCACTTACGACAACTCTGTGGCC 426
                                                                                                                                                    101 Phe***ThrArgPheGlnThrSerAla***Arg***LeuThrTyrAsg*****ValAla 120
                                                                                                                                                                                                                  427 ATGGTTCCATTCGGACCTTACTGGAAGTTCGTGAGGAAGCTCATCATGAACGACCTTCTC 486
                                                                                                                                                                                                                                                                                                                                  1.51e-259
2269.00
87.14%
87.14%
94.70%
32
                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                           Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                               Matches:
                                                                                                                                                                                                                                                                                                                                                                                            .0 0 67
                                                                                                                                                                                                                                                                                                                                                                                                                       0
```

片

607 AAATGGACCAACAGCACCATCTCCATGATGATGCTCGGCGAGGCTGAGGAGATCAGAGAC 666

500	IleLeuLysGly***AspAlaLysValSerMetGluGluArgAlaGlyLeuThrValPro	481	Ś
506	ACACTTCTTGCATCTCTTATCCAATGCTTTGACCTGCAAGTGCTTGGGCCCTCAAGGACAA 1	1447	Ď
80	ThrLeuLeuAlaSerLeuIleGlnCysPheAspLeuGlnValLeuGlyProGlnGlyGln 4	461	Ś
446		1387	片
60	ProPheGlySerGlyArg***MetCysProGlyVal***LeuAlaThrSerGly***Ala 4	441	Ş
386	ACTGGTGCTGAAGGGGAAGCAGGGCCTCTTGATCTTAGGGGCCAGCATTTCCAACTCCTC 1:	1327	Вb
40	Thr***AlaGluGlyGluAla******LeuAspLeuArgGly***HisPheGlnLeuLeu 4	421	ş
.326	GGAAGGGACCCCAAATACTGGGACAGACCATCAGAATTCCGTCCCGAGAGGTTCTTAGAA 1	1267	뭥
420	Gly***Asp***LysTyrTrpAspArgProSerGlu***ArgProGluArgPheLeuGlu	401	5
266	GAGATTAATGGGTATGTGATCCCAGAGGGAGCATTGGTTCTTTTCAATGTTTGGCAAGTA 1	1207	ઠ
00	***IleAsnGly***Val***ProGluGlyAlaLeu*****PheAsnValTrpGlnVal 4	381	Ş
206	GAGACATTCCGAATGCACCCACCCCCCAGTGGTCAAAAGAAAG	1147	먕
80	GluThrPheArgMetHisProProLeuProValValLysArgLysCys***GluGluCys 3	361	5
.146	GATAGACTCGTTGACGAAGTTGACACTCAAAACCTTCCTT	1087	밁
60	Asp***LeuValAspGluValAspThrGlnAsnLeuProTyrIleArgAlaIleValLys 3	341	5
086	ATCAACAATCCCAGGTGTTGCAAAAGGCTCGTGAGGAGGTCTACAGTGTTGTGGGCAAA 1	1027	용
40	IleAsnAsnPro***ValLeu******AlaArgGluGlu***TyrSerValValGlyLys 3	321	Ś
026	TITTTCTCTGCAGGGACAGATTCCACAGCGGTGGCAACAGAGTGGGCATTGGCAGAGCTC 1	967	8
20	***PheSerAlaGly***AspSerThrAla******ThrGluTrpAlaLeuAlaGluLeu 3	301	S
66		907	밁
00	GluAspGluThr***GluIleLysIleThrLys******IleLysGlyLeuValValAsp 3	281	á
90	GGAGAAGTTGTTGAGGGCGAGGCCAGCGCGTCTTCCTCGACACTTTGCTTGAATTCGCT 9	84	밁
80	GlyGlu******GluGlyGlu***SerGlyVal***LeuAspThrLeuLeuGluPheAla 2	261	Ś
46	GACCCTGTCGTTGAAAGGGTCATCAAGAAGCGCCGTGAGATCGTCAGAAGGAGAAGAAC 8	. 787	밁
60	AspProValValGluArgValIleLysLysArgArg***IleValArgArgArg***Asn 2	241	Ş
86	TIGAAGTATCTCAAGGTTGGAAAGTATGAGAAGAGGATTGATGACATCTTGAACAAGTTÇ	727	밁
40	LeuLys***LeuLysValGlyLysTyrGluLysArgIleAspAspIleLeuAsnLysPhe 2	221	Ś
26	ATCGC	667	밁
20	IleAlaArgGluValLeuLysIle***GlyGluTyrSerLeuThrAspPheIle***Pro 2	201	ઇ

```
; SEQ ID NO 1
; LENGTH: 1756
; TYPE: DNA
; ORGANISM: Glycine max
US-10-104-706-1
                                  밁
                                                                Ś
                                                                                                  뮍
                                                                                                                                   Ś
                                                                                                                                                                     밁
                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ફ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                   US-09-857-581-66 (1-521) x US-10-104-706-1 (1-1756)
                                                                                                                                                                                                                                                                                   Query Match:
                                                                                                                                                                                                                                                                                                                                      Score:
                                                                                                                                                                                                                                                                                                                                                    Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-104-706-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Odell, Joan
APPLICANT: Yu, Xiaodan
APPLICANT: Lu, Guihua
APPLICANT: Xu, Hu
APPLICANT: Ruff, Richard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1, Application US/10104706 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: Root-Specific, Stimulant Inducible Promoter and its Use FILE REFERENCE: BB1468 US NA CURRENT APPLICATION NUMBER: US/10/104,706 CURRENT FILING DATE: 2002-03-22 PRIOR APPLICATION NUMBER: 06/278379 PRIOR FILING DATE: March 23, 2001 NUMBER OF SEQ ID NOS: 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Microsoft Office 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1507 ATATTGAAAGGTGATGATGCCAAAGTTAGCATGGAAGAGAGCTGGCCTCACAGTTCCA 1566
                                521 Ser 521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          501 ArgAlaHisSerLeuValCysValProLeuAlaArgIleGlyValAlaSerLysLeuLeu 520
                                                                                                127 ACACCAAGTGCAAAATCAAAAGCACTTCGCCACCTCCCAAACCCTCCAAGCCCAAAGCCT 186
                                                                                                                                                               61 IleAspLeuSerLysLysHisGlyProLeuPheSer*****PheGlySerMetProThr 80
                                                                                                                 21 ThrPro***Ala***SerLysAlaLeuArgHisLeuProAsnProProSerPro***Pro 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCT 1629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGGCACATAGTCTCGTTTGTGTTCCACTTGCAAGGATCGGCGTTGCATCTAAACTCCTT 1626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Lu, Guihua
Xu, Hu
Ruff, Richard
                                                                                                                                                                                                                                                                    1.51e-259
2269.00
87.14%
87.148
94.70%
                                                                                                                                                                                                                                                                                   Conservative: Mismatches: Indels:
                                                                                                                                                                                                                                                                                                                                   Length:
Matches:
                                                                                                                                                                                                                                                                    0 0
```

60	341 Asp***LeuValAspGluValAspThrGlnAsnLeuProTyrIleArgAlaIleValLys 3	Ş
40	321 IleAsnAsnPro***ValLeu*****AlaArgGluGlu***TyrSerValValGlyLys 3.	음 성
20 026	301 ***PheSerAlaGly***AspSerThrAla******ThrGluTrpAlaLeuAlaGluLeu 3:	8 8
66	281 GluAspGluThr***GluIleLysIleThrLys*******IleLysGlyLeuValValAsp 3	음 성
90	261 GlyGlu*****GluGlyGlu***SerGlyVal***LeuAspThrLeuLeuGluPheAla 2	유 성
46	241 AspProValValGluArgValIleLysLysArgArg***IleValArgArgArg***Asn 2 	음 성
86	221 LeuLys***LeuLysValGlyLysTyrGluLysArgIleAspAspIleLeuAsnLysPhe 2 	용 성
20	201 IleAlaArgGluValLeuLysIle***GlyGluTyrSerLeuThrAspPheIle***Pro 2	B 8
00	181 LysTrp***AsnSerThr***SerMetMet***LeuGlyGluAlaGluGluIleArgAsp 2	용 성
90	161 Arg***MetAlaGln***AlaGluAla***LysProLeuAsp***ThrGluGluLeuLeu 1 	유양
46	41 AsnAlaThrThrValAsn***LeuArgProLeuArgThrGlnGlnIleArgLys***Leu.1 	용 성
86	121 ******Pro***GlyProTyrTrp***PheValArgLysLeuIleMetAsnAspLeuLeu 1 	유 성
26	101 Phe***ThrArgPheGlnThrSerAla***Arg***LeuThrTyrAsp******ValAla 1	유
66	81 ValValAlaSerThrProGluLeuPheLysLeuPheLeuGln******GluAlaThrSer 1	음 성
90		용

```
Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                              ; Sequence 1, Application US/10104706A
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-104-706A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                               SEQ ID NO 1
                                                                                                                                                  APPLICANT: Odell, Joan
APPLICANT: Yu, Xiaodan
APPLICANT: Lu, Guihua
APPLICANT: Xu, Hu
TITLE OF INVENTION: Root-Specific, Stimulant Inducible Promoter and its Use
FILE REFERENCE: BB1468 US NA
CURRENT APPLICATION NUMBER: US/10/104,706A
CURRENT FILING DATE: 2002-03-22
                                                 PRIOR APPLICATION NUMBER: 60/278379
PRIOR FILING DATE: March 23, 2001
NUMBER OF SEQ ID NOS: 17
SOFTWARE: Microsoft Office 97
LENGTH: 1756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1627 TCT 1629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1447 ACACTICTIGCATCTCTTATCCAATGCTTTGACCTGCAAGTGCTGGGCCCTCAAGGACAA 1506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1387 CCATTIGGGICIGGGAGGAGIGIGIGCCCTGGIGICAATTIGGCIACTICAGGAAIGGCA 1446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1327 ACTGGTGCTGAAGGGGAAGCAGGGCCTCTTGATCTTAGGGGGCCAGCATTTCCAACTCCTC 1386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1267 GGAAGGGACCCCAAATACTGGGACAGACCATCAGAATTCCGTCCCGAGAGGTTCTTAGAA 1326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1207 GAGATTAATGGGTATGTGATCCCAGAGGGAGCATTGGTTCTTTTCAATGTTTGGCAAGTA 1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    521 Ser 521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         501 ArgAlaHisSerLeuValCysValProLeuAlaArgIleGlyValAlaIsSerLysLeuLeu 520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481 IleLeuLySGly***AspAlaLysValSerMetGluGluArgAlaGlyLeuThrValPro 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              461 ThrLeuLeuAlaSerLeuIleGlnCysPheAspLeuGlnValLeuGlyProGlnGlyGln 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      441 ProPheGlySerGlyArg***MetCysProGlyVal***LeuAlaThrSerGly***Ala 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421 Thr***AlaGluGlyGluAla*******LeuAspLeuArgGly***HisPheGlnLeuLeu 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          401 Gly***Asp***LysTyrTzpAspArgProSerGlu***ArgProGluArgPheLeuGlu 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           381 ***IleAsnGly***Val***ProGluGlyAlaLeu*****PheAsnValTrpGlnVal 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361 GluThrPheArgMetHisProProLeuProValValLysArgLysCys***GluGluCys 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGGCACATAGICICGTTTGTGTTCCACTTGCAAGGATCGGCGTTGCATCTAAACTCCTT 1626
```

; ORGANISM: Glycine max US-10-104-706A-1

Qy 201 Db 667	Qy 181 Db 607	Qy 161 Db 547	Qy 141 Db 487	Qy 121 Db 427	Qy 101 Db 367	Qy 81 Db 307	Qy 61 Db 247	Qy 41 Db 187	Qy 21 Db 127	Qy 1 Db 67	US-09-857-	Alignment S Pred. No.: Score: Secrent Sim Best Local Query Match DB:
IleAlaArgGluValLeuL ATCGCTCGCGAGGTTCTTA	LysTrp***AsnSerThr* AAATGGACCAACAGCACCA	Arg***MetAlaGln***A 	AsnAlaThrThrValAsn* AACGCCACCACCGTCAACA	******Pro****GlyProT 	Phe***ThrArgPheGlnT TTCAACACAAGGTTCCAAA	ValValAlaSerThrProg	IleAspLeuSerLysLysH 	ArgLeuProPheIleGlyH CGTCTTCCCTTCATTGGCC	ThrPro***Ala***SerI	MetLeuLeuGluLeuAlaI 	-581-66 (1-521) x US-	: Scores: 1.51e-2 :: 2269.00 similarity: 87.14% al Similarity: 87.14% cch: 94.70%
IleAlaArgGluValLeuLy8 e***GlyGluTyrSerLeuThrAspPhe e***Pro 	LysTrp***AsnSerThr***SermetMet***LeuGlyGluAlaGluGluIleArgAsp 	MetAlaGln***AlaGluAla***LysProLeuAsp***ThrGluGluLeuLeu METALAGGCCAGAGGCCCAGAAGCCCCTTGACGTCACCGAGGAGCTTCTC	AsnAlaThrThrValAsn***LeuArgProLeuArgThrGlnGlnIleArgLys***Leu 	******Pro***GlyProTyrTrp***PheValArgLysLeuIleMetAsnAspLeuLeu 	Phe***ThrArgPheGlnThrSerAla***Arg***LeuThrTyrasp******ValAla 	ValValAlaSerThrProGluLeuPheLysLeuPheLeuGln*****GluAlaThrSer 	IleAspLeuSerLysLysHisGlyProLeuPheSer*****PheGlySerMetProThr 	ArgLeuProPheIleGlyHis***HisLeuLeuLysAspLysLeuLeuHisTyrAla***	hrpro***Ala***SerLysAlaLeuArgHisLeuProAsnProProSerPro***Pro 	MetLeuLeuGluLeuAlaLeuGlyLeu***ValLeuAlaLeuPhe***HisLeuArgPro 	3-10-104-706A-1 (1-1756	Length: .00 Matches: .00 Conservative .8 Mismatches: .18 Indels: .04 Gaps:
uThraspPheIle***Pro 220 CACIGACTICATCIGGCCT 726	uAlaGluGluIleArgAsp 200 GGCTGAGGAGATCAGAGAC 666	p***ThrGluGluLeuLeu 180	nGlnIleArgLys***Leu 160 ACAGATCCGCAAGTTCCTT 546	ulleMetAsnAspLeuLeu 140	rTyrasp******Valala 120 TTACGACAACTCTGTGGCC 426	.n******GluAlaThrSer 100 	*PheGlySerMetProThr 80 CTTCGGCTCCATGCCAACC 306	SLeuLeuHiSTyrAla*** 60 ACTTCTCCACTATGCACTC 246	nProProSerPro***Pro 40 cccrccaagcccaaagccr 186	uPhe***HisLeuArgPro 20 GTTTCTGCACTTGCGTCCC 126	5	1756 454 1: 0 67

용 성	A 6	β δ	유 성	음 양	β δ	B 8	B S	A 6	. B. 64	β. δ	β. δ	B 8	유 성	
481 1507	461 1447	441 1387	421 1327	401 1267	381 1207	361 1147	341 1087	321 1027	301 967	281 907	261 847	241 787	221 727	
IleLeuLysGly***AspAlaLysValSerMetGluGluArgAlaGlyLeuThrValPro 500	ThrieuleuAlaSerieuIleGlnCysPheAspleuGlnValLeuGlyProGlnGlyGln 480	ProPheGlySerGlyArg***MetCysProGlyVal***LeuAlaThrSerGly***Ala 460	Thr***AlaGluGlyGluAla******LeuAspLeuArgGly***HisPheGlnLeuLeu 440	Gly***Asp***LysTyrTrpAspArgProSerGlu***ArgProGluArgPheLeuGlu 420	***IleAsnGly***Val***ProGluGlyAlaLeu*****PheAsnValTrpGlnVal 400	361 GluThrPheArgMetHisProProLeuProValValLysArgLysCys***GluGluCys 380 	Asp***LeuValAspGluValAspThrGlnAsnLeuProTyrIleArgAlaIleValLys 360	IleAsnAsnPro***ValLeu******AlaArgGluGlu***TyrSerValValGlyLys 340	001 ***PheSerAlaGly***AspSerThrAla*****ThrGluTrpAlaLeuAlaGluLeu 320 	GluAspGluThr***GluIleLysIleThrLys******IleLysGlyLeuValValAsp 300	GlyGlu******GluGlyGlu***SerGlyVal***LeuAspThrLeuLeuGluPheAla 280		3=5	

501 ArgAlaHisSerLeuValCysValProLeuAlaArgIleGlyValAlaSerLysLeuLeu 520

Db 1567	HIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
Qy 521	Ser 521
Db 1627	TCT 1629
RESULT 7 US-10-171-174A-9 ; Sequence 9, Ap	SULT 7 ≻10-171-174A-9 Sequence 9, Application US/10171174A
APPLICANT: APPLICANT:	APPLICANT: Odell, Joan APPLICANT: Yu, Xiaodan IITLE OF INVENTION: A METHOD FOR ALTERING THE ISOFLAVONOID PROFILE IN THE
PLANT PARTS ; TITLE OF	TS OF INVENTION: OF AN ISOFLAVONOID-PRODUCING PLANT
; FILE R	FILE REFERENCE: BB1452 US NA CURRENT APPLICATION NUMBER: US/10/171,174A
; CURREN	CURRENT FILING DATE: 2002-06-13 PRIOR APPLICATION NUMBER: 60/297,981
; PRIOR :	PRIOR FILING DATE: 2001-06-13 NUMBER OF SEQ ID NOS: 16
ίο O	SOFTWARE: Microsoft Office 97
; LENGT	LENGTH: 1756
; TYPE: DNA; ORGANISM:	TYPE: DNA ORGANISM: Glycine max
US-10-171	10-171-174A-9
Allgnment Pred. No.: Score:	scores: 1.51e-259 Length:
Percent S: Best Local	Percent Similarity: 87.14% Conservative: 0 Best Local Similarity: 87.14% Migmarches. 67
Query Match: DB:	94.70% Indels: 41 Gaps:
US-09-857.	857-581-66 (1-521) x US-10-171-174A-9 (1-1756)
Ωy 1 Db 67	MetLeuLeuGluLeuAlaLeuGlyLeu***ValLeuAlaLeuPhe***HisLeuArgPro 20
0у 21	ThrPro***Ala***SerLysAlaLeuArgHisLeuProAsnProProSerPro***Pro 40
Db 127	ACACCAAGTGCAAAATCAAAAGCACTTCGCCACCTCCCAAACCCTCCAAAGCCCAAAGCCT 186
0у 41	ArgLeuProPheIleGlyHis***HisLeuLeuLysAspLysLeuLeuHisTyrAla*** 60
Db 187	GTCTTCCCTTCATTGGCCACCTTCACCTCTTAAAAGATAAACTTCTCCACTATGCACTC 246
Οу 61	IleAspLeuSerLysLysHisGlyProLeuPheSer*****PheGlySerMetProThr 80
Db 247	ATGGATCTCTCCAAAAAGCATGGCCCCTTATTCTCTCTCT
Оу 81	ValValAlaSerThrProGluLeuPheLysLeuPheLeuGln******GluAlaThrSer 100

밁

```
Ś
                                                                                                                                S
    밁
                                                                                        B
                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
361 GluThrPheArgMetHisProProLeuProValValLysArgLysCys***GluGluCys 380
                                                                                        1087
                                                                                                                                                                               1027
                                                                                                          341 Asp***LeuValAspGluValAspThrGlnAsnLeuProTyrIleArgAlaIleValLys 360
                                                                                                                                                                                                321 IleAsnAsnPro***ValLeu******AlaArgGluGlu***TyrSerValValGlyLys 340
                                                                                                                                                                                                                                                                 967
                                                                                                                                                                                                                                                                                  301 ***PheSerAlaGly***AspSerThrAla******ThrGluTrpAlaLeuAlaGluLeu 320
                                                                                                                                                                                                                                                                                                                                              847
                                                                                                                                                                                                                                                                                                                                                                                                                                                             261 GlyGlu******GluGlyGlu***SerGlyVal***LeuAspThrLeuLeuGluPheAla 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       201 IleAlaArgGluValLeuLysIle***GlyGluTyrSerLeuThrAspPheIle***Pro 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181 LysTrp***AsnSerThr***SerMetMet***LeuGlyGluAlaGluGluIleArgAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                161 Arg***MetAlaGln***AlaGluAla***LygProLeuAsg***ThrGluGluLeuLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      141 AsnAlaThrThrValAsn***LeuArgProLeuArgThrGlnGlnIleArgLys***Leu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121 ******Pro***GlyProTyrTrp***PheValArgLysLeuIleMetAsnAspLeuLeu 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241 AspProValValGluArgValIleLysLysArgArg****IleValArgArgArg***Asn 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     221 LeuLys***LeuLysValGlyLysTyrGluLysArgIleAspAspIleLeuAsnLysPhe 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        607 ARATGGACCARCAGCACCATCTCCCATGATGATGCTCGGCGAGGCTGAGGAGATCAGAGAC 666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             727 TIGAAGTATCTCAAGGTTGGAAAGTATGAGAAGAGGATTGATGACATCTTGAACAAGTTC 786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    427 ATGGTTCCATTCGGACCTTACTGGAAGTTCGTGAGGAAGCTCATCATGAACGACCTTCTC 486
                                                                                    ATCAACAATCCCAGGGTGTTGCAAAAAGGCTCGTGAGGAGGTCTACAGTGTTGTGGGCAAA 1086
                                                                                                                                                                                                                                                              TTTTTCTCTGCAGGGACAGATTCCACAGCGGTGGCAACAGAGTGGGCATTGGCAGAGCTC 1026
                                                                                                                                                                                                                                                                                                                                                                                                                                       GGAGAAGTTGTTGAGGGCGAGGCCAGCGGCGTCTTCCTCGACACTTTGCTTGAATTCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATCGCTCGCGAGGTTCTTAAGATCTTCGGCGAATACAGCCTCACTGACTTCATCTGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Phe***ThrArgPheGlnThrSerAla***Arg***LeuThrTyrAsp******ValAla 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGGGTTATGGCCCAAAGCGCAGAGGCCCCAGAAGCCCCTTGACGTCACCGAGGAGCTTCTC 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AACGCCACCACCACCAACAAGCTCAGGCCTTTGAGGACCCAACAGATCCGCAAGTTCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCAACACAAGGTTCCAAACCTCTGCCATAAGACGCCTCACTTACGACAACTCTGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTCGTTGCCTCCACCCCTGAGTTGTTCAAGCTCTTCCTCCAAACCCACGAGGCAACTTCC 366
                                                                                                                                                                                                                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                   966
                                                                                                                                                                                                                                                                                                                                                                                                                                       906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        426
```

Alignm Pred. Score: Percen Best L	VS- ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	음 성	유	유 왕	유 성	유	유 성	음 성	용 성
Alignment : Pred. No.: Score: Percent Si Best Local	WS-60-117-769-1 US-60-117-769-1 Sequence 1, A SEGUERAL INFOR APPLICANT: F APPLICANT: F APPLICANT: J TITLE OF INV FILE REFEREN CURRENT APPLI CURRENT APPLI CURBENT OF SE SOFTWARE: MI SEQ ID NO 1 LENGTH: 175 TYPE: DNA GORGANISM: GURGANISM: GURGA	521 1627	501 1567	481 1507	461 1447	441 1387	421 1327	401 1267	381 1207
Alignment Scores: Pred. No.: Score: Score: Percent Similarity: Best Local Similarity:	SULT 8 SEQUENCE 1, Application US/6 GENERAL INFORMATION: APPLICANT: Fader, Gary M. APPLICANT: McGonigle, Brian APPLICANT: Jung, Moosuk TITLE OF INVENTION: Nucleic FILE REFERENCE: BB-1339-P1 CURRENT FILLING DATE: 1999-0. NUMBER OF SEQ ID NOS: 6 SOFTWARE: Microsoft Word Ve. SEQ ID NO 1 LENGTH: 1756 TYPE: DNA ORGANISM: Glycine max -60-117-769-1	Ser 521 CT 1629	ArgAlaHisSerL AGGGCACATAGTC	IleLeuLysGly* ATATTGAAAGGTG	ThrLeuLeuAlaS	ProPheGlySerG	Thr***AlaGluG	Gly***Asp***L GGAAGGGACCCCA	***IleAsnGly* GAGATTAATGGGT
1.51e-259 2269.00 87.14% 87.14%	%60117769 an ic Acid Fr il US/60/1 1-01-27 Version 7.		euValCysValProL CGTTTGTGTTCCAC	**AspAlaLysVals ATGATGCCAAAGTTA	erLeuIleGlnCysF CTCTTATCCAATGCT	lyArg***MetCysI GGAGGAGAATGTGCC	lyGluAla****** GGGAAGCAGGGCCTC	ysTyrTrpAspArgE AATACTGGGACAGAC	**Val***ProGluc argrgarcccagage
Length: Matches: Conservative: Mismatches:	agments Encoding 17,769		ewalaargIleGly\ TTGCAAGGATCGGCC	erMetGluGluArg/ GCATGGAAGAGAGAGA	heAspLeuGlnVall TTGACCTGCAAGTGG	roGlyVal***Lew CIGGIGICAATITG	ewAspLewArgGly' !TTGATCTTAGGGGCC	roSerGlu***ArgI CATCAGAATTCCGTO	:lyAlaLeu*****! GAGCATIGGTTCTT
1756 0 454 6 7	og Isoflavone Synthase		ArgalaHisSerLeuValCysValProLeuAlaArgIleGlyValAlaSerLysLeuLeu ! 	IleLeuLysGly***AspAlaLysValSerMetGluGluArgAlaGlyLeuThrValPro :	ThrLeuLeuAlaSerLeuIleGlnCysPheAspLeuGlnValLeuGlyProGlnGlyGln (ProPheGlySerGlyArg***MetCysProGlyVal***LeuAlaThrSerGly***Ala .	Thr***AlaGluGlyGluAla******LeuAspLeuArgGly***HisPheGlnLeuLeu	Gly***Asp***LysTyrTrpAspArgProSerGlu***ArgProGluArgPheLeuGlu .	***IleAsnGly***Val***ProGluGlyAlaLeu*****PheAsnValTrpGlnVal '
	6 35		520 1626	9951.	480 1506	460 1446	440 1386	420 1326	400 1266

							·		
Db Qy	Q	D Q D Q	D	Db Qy	D	D Q 5	B & B &	Query DB:	
727 TIGAAGTATCTCC 241 ASPPROVAIVAI(787 GACCCIGICGTC	201 IleAlaArgGlu\	161 Arg***MetAlac	427 ATGGTTCCATTCC 141 ASDALATHETHE 141 ASDALATHETHE 141 ASDALATHETHE 487 AACGCCACCACCA		61 IleAspLeuSeri	41 ArgLeuProPhe:	1 67 21	Match: 857-581-66 (1-5	
TIGAAGTATCTCAAGGTIGGAAAGTATGACAAGAGGATTGATGACATCTTGAACAAGTTC ASPPROVALVAGGUACYVALILELYSLYSATGACY***TLEVALATGATGATGACAAGTTC ASPPROVALVAGGUACTVALILELYSLYSATGATG***TLEVALATGATGATGATGATGATGATGATGATGATGATGATGATGA	IleAlaArgGluValLeuLysIle***GlyGluTyrSerLeuThrAspPheIle***Pro	Arg***MetAlaGln***AlaGluAla***LysProLeuAsp***ThrGluGluLeuLeu	******PTO***GLYPTOTYTTP***PNEVALATGLYBLEUILEMECKSINASPLEULLEU	Phe***ThrArgPheGlnThrSerAla***Arg***LeuThrTyrAsg******ValAla	IleaspleuSerlyslysHisGlyProleuPheSer*****PheGlySerMetProThr	ACACCAAGIGGAAAAICAAAGGACTICGCCACCICCCAAACCCICCAAGCCCAAAGCCAAAGCCAAAGCCAAAGCCAAAGCCAAAGCCAAAGCCAAAGCCCAAAGCCCAAAGCCCAAAGCCCAAAGCCCAAAGCCCAAAGCCCAAAGCCCAAAGCCCAAAGCAAACCAAAGCAACCCAAAGCAAAGCAACCAACCAAAGCAACCAAAGCAACCAAAGCAACAA	MetLeuLeuGluLeuAlaLeuGlyLeu***ValLeuAlaLeuDhe***HisLeuArgPro	94.70% 55 21) x US-60-117-76	
GAAGAGGATTGATGA SArgArg***IleVa CGCCGTGAGATCGT	yGluTyrSerLeuTh CGAATACAGCCTCAC uLysArgIleAspAs;	*LysProLeuAsp** GAAGCCCTTGACGT t***LeuGlyGluAl.	eValarghysheuli CGTGAGGAAGCTCAT OLeuArgThrGlnGl	*Arg***LeuThrTy aagacgcccactta	uPheSer******Ph	CCACCTCCCAAACCC uLeuLysAspLysLe	*ValLeuAlaLeuPh	Indels: Gaps: 769-1 (1-1756)	
CATCTTGAACAAGTTC 786 LATGATGATG***ASN 260 ATGATGATGATGATGATGATGATGATGATGATGATGATGA	rAspPheIle***Pro 220 TGACTTCATCTGGCCT 726 pIleLeuAsnLysPhe 240	Arg***MetAlaGln***AlaGluAla***LysProLeuAsp***ThrGluGluLeuLeu 180	******PIO***GJYPTOTYTIP***PIROVALATGJYBLGUILGMGEASINASpLGULGU 140	4 1 2	eglySerMetProThr 80	TCCAAGCCCAAAGCCT 186 ULeuHisTyrAla*** 60 TCTCCACTATGCACTC 246			

	Ş	В	Ş	Db 1	δ	Db J	γQ	Db 1	Ş	Db 1	Ş	Db 1	Qγ	B	β	문	Ş	₽	Ş	뮹	\$	Ф	Ş
1627 TCT 1629	521 Ser 521	1567 AGGGCACATAGTCTCGTTTGTGTTCCACTTGCAAGGATCGGCGTTGCATCTAAACTCCTT 1626	501 ArgAlaHisSerLeuValCysValProLeuAlaArgIleGlyValAlaSerLysLeuLeu 520	1507 ATATTGAAAGGTGATGATGCCAAAGTTAGCATGGAAGAGAGAG	481 IleLeuLysGly***AspAlaLysValSerMetGluGluArgAlaGlyLeuThrValPro 500	1447 ACACTICTIGCATCTCTTATCCAATGCTTTGACCTGCAAGTGCTGGGCCCTCAAGGACAA 1506	461 ThrLeuLeuAlaSerLeuIleGlnCysPheAspLeuGlnValLeuGlyProGlnGlyGln 480	1387 CCATTTGGGTCTGGGAGAGAATGTGCCCTGGTGTCAATTTTGGCTACTTCAGGAATGGCA 1446	441 ProPheGlySerGlyArg***MetCysProGlyVal***LeuAlaThrSerGly***Ala 460	1327 ACTGGTGCTGAAGGGGAAGCAGGGCCTCTTGATCTTAGGGGCCAGCATTTCCAACTCCTC 1386	421 Thr***AlaGluGlyGluAla******LeuAspLeuArgGly***HisPheGlnLeuLeu 440	1267 GGAAGGGACCCCAAATACTGGGACAGACCATCAGAATTCCGTCCCGAGAGGTTCTTAGAA 1326	401 Gly***Asp***LysTyrTrpAspArgProSerGlu***ArgProGluArgPheLeuGlu 420	1207 GAGATTAATGGGTATGTGATCCCAGAGGGAGCATTGGTTCTTTTCAATGTTTTGGCAAGTA 1266	381 ***IleAsnGly***Val***ProGluGlyAlaLeu*****PheAsnValTrpGlnVal 400	1147 GAGACATTCCGAATGCACCCCACCACTCCCAGTGGTCAAAAGAAAG	361 GluThrPheArgMetHisProProLeuProValValLysArgLysCys***GluGluCys 380	1087 GATAGACTCGTTGACGAAGTTGACACTCAAAACCTTCCTT	341 Asp***LeuValAspGluValAspThrGlnAsnLeuProTyrIleArgAlaIleValLys 360	1027 ATCAACAATCCCAGGGTGTTGCAAAAGGCTCGTGAGGAGGAGGTCTACAGTGTTGTGGGCAAA 1086	321 IleAsnAsnPro***ValLeu******AlaArgGluGlu***TyrSerValValGlyLys 340	967 TTTTTCTCTGCAGGGACAGATTCCACAGCGGTGGCAACAGAGTGGGCATTGGCAGAGCTC 1026	301 ***PheSerAlaGly***AspSerThrAla******ThrGluTrpAlaLeuAlaGluLeu 320

В